

REMARKS

In the first Office Action, the Examiner objects to the title of the invention as allegedly not descriptive; rejects claims 1-11 under 35 USC §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention; and rejects claims 1-11 under 35 USC §102(b) as allegedly being anticipated by BuAbbud et al. (US Patent No. 6,278,829).

By way of the present amendment, Applicants amend the specification and abstract to improve form. Applicants also amend claims 1 and 3 to improve form. Applicants further add new claims 12-35. No new matter is added by way of this amendment. Claims 1-35 are now pending.

The title is objected to as not being descriptive. Applicants have amended the title to be more descriptive of the invention to which the claims are directed. Applicants have also amended the abstract.

A Supplemental Information Disclosure Statement (IDS) was filed on January 3, 2005. Entry of the IDS is respectfully requested.

Claims 1-11 stand rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended claim 1 to recite “a fiber distribution hub” in the preamble and “an enclosure” in the body of the claim. Claim 1 is not indefinite, and dependent claims 2-11 have proper antecedent basis to “fiber distribution hub”. For at least the foregoing reasons, Applicants request that the rejection of claims 1-11 under 35 USC §112, second paragraph, be reconsidered and withdrawn.

Claims 1-11 stand rejected under 35 USC §102(b) as being anticipated by BuAbbud. The Office Action alleges that BuAbbud (Figures 1-6) shows a fiber distribution hub enclosure 10

having a subscriber patch shelf 14, 16, 18 with a plurality of termination connectors 64 to form a termination field and a splitter shelf with a plurality of optical splitter modules 24, 26, 28 with a plurality of adapter receptacles on a splitter module bulkhead (Office Action, page 3). The Examiner goes on to allege that BuAbbud discloses that the optical splitter shelf is provided with a strain relief harness 32 with an adapter for providing pull strength and radius control for a ribbon cable 30 (Office Action, page 3). The Examiner further alleges that forming a plurality of individual jacketed pigtails for splitter ports, an adapter for storing a plurality of splitter output pigtail ends, configuring the adapter receptacles for receiving a connector ferrule tip and a hinge on the splitter module shelf are inherent as these are found in almost all optical fiber routing and support cabinets (Office Action, page 3). Applicants traverse the rejection of claims 1-11 under 35 USC §102(b).

A proper rejection under 35 USC § 102 requires that a single reference teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. See M.P.E.P. § 2131. Applicants respectfully submit that BuAbbud does not disclose the combination of features recited in claims 1-11.

For example, amended independent claim 1 recites a fiber distribution hub in an optical fiber-to-the-premises network. The distribution hub includes an enclosure; a subscriber patch shelf in the enclosure and having a plurality of termination connectors to form a termination field; and an optical splitter shelf in the enclosure and having a plurality of optical splitter modules, the optical splitter modules having a plurality of splitter output pigtail ends wherein the pigtail ends are connectorized and administratively located directly on a splitter module bulkhead. BuAbbud does not disclose or suggest this combination of features.

For example, BuAbbud does not disclose or suggest an optical splitter shelf in the enclosure and having a plurality of optical splitter modules, the optical splitter modules having a

plurality of splitter output pigtail ends wherein the pigtail ends are connectorized and administratively located directly on a splitter module bulkhead, as required by amended claim 1.

The Examiner relies on figures 1-6 of BuAbbud for teaching these features of claim 1. Figures 1-6 of BuAbbud disclose a fiber optic supporting and routing apparatus (abstract). The apparatus of BuAbbud employs splitter wave division multiplexing fiber optical panels 24, 26, 28 having a front face 52 containing a plurality of fiber optical connectors 56a-n, and a bundle of fiber optics 30 having one end attached to the back of distribution panel 24 and the other end attached to front face 52 after being coiled 38 on a hook 40 or spool 72. (col. 3, lines 45-63, col. 4, lines 17-21, Figures 1, 2, 3A and 3B). In particular, BuAbbud et al. uses coil 38 to store excess fiber 30 when upgrading terminal 12 (col. 3, lines 45-50, Figures 2 and 3B).

The Examiner alleges that BuAbbud discloses a splitter shelf with a plurality of optical splitter modules (Office Action, page 3). Applicants disagree. BuAbbud places a single light guide cross-connected panel, or a single splitter wave division multiplexing panel, at a vertical location within an enclosure (Figures 1, and 3B). Each panel spans the entire width of the opening into which the panel is mounted within the enclosure (Figure 1). Furthermore, no shelf is disclosed in the figures or text of BuAbbud. As shown by the above arguments, BuAbbud does not disclose or suggest placing multiple optical splitter modules on an optical splitter shelf in an enclosure, as required by claim 1. For at least the foregoing reasons, Applicants respectfully request that the rejection of claim 1 under 35 USC §102(b) be reconsidered and withdrawn. Claims 2-11 depend from claim 1 and are allowable for at least the reasons argued in connection with claim 1. Reconsideration and allowance of claims 2-11 is respectfully requested in view of the above remarks.

For example, claim 3 recites additional features as compared to claim 1. Claim 3 recites the features of a ribbon harness extending from the optical splitter shelf, the harness affixed to

the optical splitter shelf and having a strain relief adapter that provides a higher level of pull strength on the cable and an improved bend radius control. BuAbbud does not teach or suggest these features of claim 3.

The Examiner alleges that figures 1-6 of BuAbbud disclose an optical splitter shelf that is provided with a strain relief harness 32 with an adapter for providing pull strength and radius control for a ribbon cable 30. BuAbbud does not teach as the Examiner alleges. Figures 1-6 show individual pigtails or a bundle of fibers 68; however, BuAbbud does not disclose “ribbon cable”, “strain relief” or a “harness affixed to the optical splitter shelf” and having a strain relief adapter, as required by claim 3. Claims 4, 5 and 6 recite features similar to those of claim 3 and are allowable for at least the reasons argued in conjunction with claim 3.

The Examiner alleges that forming a plurality of individual jacketed pigtails for splitter ports, an adapter for storing a plurality of splitter output pigtail ends, configuring the adapter receptacles for receiving a connector ferrule tip and a hinge on the splitter module shelf are inherent as these are found on almost all optical fiber routing and support cabinets (Office Action, page 3). Applicants respectfully disagree.

BuAbbud is directed to a fiber optic supporting and routing apparatus, yet BuAbbud does not disclose or suggest forming a plurality of individual jacketed pigtails for splitter ports, an adapter for storing a plurality of splitter output pigtail ends, configuring the adapter receptacles for receiving a connector ferrule tip, and a hinge on the splitter module shelf. Applicants respectfully request that the Examiner provide references in support of the above allegation. Applicants further request that the Examiner apply the references to specific features recited in Applicants claims. Absent references supporting the above allegation, Applicants respectfully request that the Examiner withdraw claim rejections based in whole, or in part, on the above allegation.

Applicants have added new claims 12-35 directed to a method for configuring an enclosure for use in distributing optical signals in a communications network. The new claims are supported by the as-filed specification on at least page 4, lines 16-28; page 5, lines 1-24; page 13, lines 19-29; page 14, lines 1-16; and Fig. 6. Allowance of claims 12-35 is respectfully requested.

CONCLUSION

It is not believed that any extension of time is required; however, if it is determined that an extension is required, petition is hereby made and authorization is given to charge any additional fees due for this submission or credit any overpayments to Deposit Account No. 50-1070.

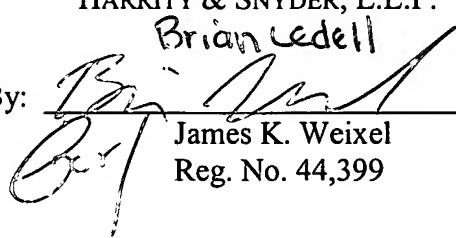
In view of the amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone call would expedite the prosecution of this case, the Examiner is invited to call the undersigned at (571) 432-0800.

Respectfully submitted,

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SYSTEMS AND METHODS FOR MANAGING OPTICAL FIBERS AND COMPONENTS
WITHIN AN ENCLOSURE IN AN OPTICAL COMMUNICATIONS NETWORK

ABSTRACT OF THE DISCLOSURE

An optical splitter module includes connectorized pigtails that are stored on the bulkhead faceplate of the module. The module includes an optical splitter output harness, for example, a ribbon cable assembly attached to the bulkhead with rugged strain relief mechanism. The ribbon harness is converted to individual pigtails with connectors which are stored on adapter receptacles on the faceplate. Adapter receptacles used may optionally be half receptacles when storage is the only desired function or may be full receptacles when access to the pigtail ferrule tip is required. Access to the ferrule tip may be required for attaching fiber optic terminators to eliminate undesirable reflections caused by unterminated connectors. The module provides an administrative location for splitter outputs prior to being connected individually into service. The module also provides an administrative storage location for splitter outputs taken out of service as a temporary staging area before being reassigned and connected individually into service again.